

**Notice of Allowability**

Application No.

09/851,433

Applicant(s)

KOYAMA ET AL

Examiner

Vincent E. Kovalick

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment dated 11/23/05 and RCE dated 1/12/06.
2. ☒ The allowed claim(s) is/are 33-44 and 55-60; (renumbered as 1-18).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### DETAILED ACTION

1. This Office Action is in response to Applicant's After Final Amendment dated November 23, 2005 and Applicant's Request for Continued Examination (RCE) dated January 12, 2006.

Wherein independent claims 33 and 56 were previously allowed, and the current amendments to independent claims 55 and 57 which incorporates the limitation taught in said independent claim 33; places the application in a condition for allowance as indicated hereinbelow.

#### *Allowable Subject Matter*

2. Claims 33-44 and 55-60 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Regarding claims 33, 55 and 57 the major differences between the teachings of the prior art of record (USP 5,793,344, Koyama and USP 6,040,826, Furukawa) and that of the instant invention is that said prior art of record **does not teach** a semiconductor device comprising at least a pixel portion, a data line side driver circuit, a scanning line side driver circuit, a memory portion and a memory control circuit, wherein the pixel portion is formed over a first substrate, the data line side driver circuit, the said memory portion and memory control circuit are formed over a second substrate and said scanning line side drive circuit is integrally formed over a third substrate.

Relative to claim 59, major differences between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a device comprising an input terminal; a first control circuit operationally connected to the input terminal; a second control circuit operationally connected to the first control circuit; at least one first memory

Art Unit: 2629

operationally connected to the first control circuit; a memory control circuit operationally connected to the second control circuit; a memory portion operationally connected to the memory control circuit; a data line side driver circuit operationally connected to the memory portion; and a pixel portion operationally connected to the data line side driver circuit, wherein all of the first control circuit, the second control circuit, the first memory, the memory control circuit, the memory portion, the data line side driver circuit and the pixel portion are provided adjacent to a same substrate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Applicant's Remarks***

4. Regarding Applicant's remarks indicating "Claims 55 and 57 have been amended to incorporate some of the same features from allowed independent claims 33 and dependent claim 38.) The addition of the limitation "wherein said second substrate is provided in a region except for said pixel portion over said first substrate" is sufficient to place the application in a condition for allowance.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 6,798,394 Chimura

U. S. Patent No. 6,069,793 Maruyama et al.

Art Unit: 2629

U. S. Patent No. 5,841,497 Sato et al.

***To Respond***


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vincent E. Kovalick  
March 13, 2006



BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600